

Abstract

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A digital system is provided with a memory (42) that can be shared by two or more data requestors (10, 20). Two modes of access are provided. In a shared access memory (SAM) access mode, all of the data requestors can sequentially access the memory. In a host only memory (HOM) access mode, a portion (42a) of the memory is connected directly to one of the requestors, such as a host processor (10), so that high bandwidth transfers can be performed. A portion (42b) that is not selected to be in HOM mode can be accessed by other requestors or shut down to save power. The size (S1) of the portion of memory selected for HOM mode is selected to match the requirements of a given application and can be changed by writing a size value to a register.